

AMENDMENT TO THE CLAIMS

IN THE CLAIMS:

Claim 1 (currently amended):

A digital security camera capable of generating and transmitting digital high resolution image signals in both a full motion video format and a still image frame format, the camera comprising:

- a. an image transducer;
- b. a motion video compressor associated with the image transducer for compressing full motion video images for generating a compressed full motion video image data signal;
- c. a still frame compressor associated with the image transducer for compressing still frame images for generating a compressed still frame image data signal;
- d. a multiplexer for merging the compressed full motion video image data signal and the compressed still frame image data signal into a single, combined image data signal;
- e. a processor associated with the multiplexer for generating a conditioned output image signal suitable for transmission over a network; and
- f. a network gateway,

wherein said camera may capture both full motion video and still frame video, alternately or simultaneously, and transmit both compressed full motion video and compressed still frame video, alternately or simultaneously.

Claim 2 (original):

Q' The digital camera of claim 1, wherein the compressed still frame image data signal is of a higher resolution than the compressed full motion video image data signal.

Claim 3 (original):

The digital camera of claim 1, further including an activation mechanism for activating the camera to collect images in response to an activation signal.

Claim 4 (original)

The digital camera of claim 3, wherein the activation mechanism is an event detector adapted for generating an activation signal in response to the detection of an event.

Claim 5 (original):

The digital camera of claim 4, wherein the event detector is a manually operated switch.

Claim 6 (original):

The digital camera of claim 4, wherein the event detector is a sensor adapted for automatically responding to the occurrence of an event.

Claim 7 (original):

a The digital camera of claim 6, wherein the event detector is a smoke detector.

Claim 8 (original):

The digital camera of claim 6, wherein the event detector is an acoustic event detector.

Claim 9 (currently amended):

The digital camera of claim 6, wherein the event detector is ~~motion detector~~ a motion detector.

Claim 10 (original):

The digital camera of claim 6, wherein the event detector is an alarm trigger switch.

Claim 11 (original):

The digital camera of claim 3, further including a wireless receiver and wherein the activation signal generator is a remote device having a wireless transmitter for generating an activation signal upon the occurrence of an event.

Claim 12 (original):

Q) The digital camera of claim 1, further including a plurality of image transducers each adapted for collecting digital high resolution image signals, and a second multiplexer for merging all of said signals into a combined data signal.

Claim 13 (currently amended):

The digital camera of claim 12, further including a motion compressor and a still frame compressor associated with each image transducer and positioned between the image transducer and the second multiplexer.

Claim 14 (currently amended):

The digital camera of claim 12, further including a single motion compressor and a single still frame compressor associated with all of the image transducers and positioned between the first mentioned multiplexer and the second multiplexer.

Claim 15 (currently amended)

The digital camera of claim 12, further including a cylindrical housing for housing the plurality of image transducers, each of the image transducers mounted in the cylindrical housing such that they are angularly spaced and aimed radially outward from the cylindrical housing in a manner to collect a combined image representing a full panoramic view of an area within the normal range of the image transducers.

Q' Claim 16 (currently amended):

The digital camera of ~~claim 15~~ claim 43, wherein ~~[[all]]~~ the plurality of the image transducers are mounted in a common plane generally perpendicular to the axis of the cylindrical housing.

Claim 17 (currently amended):

The digital camera of claim 16, further including ~~another~~ a second plurality of ~~sensors~~ image transducers, each of said second plurality of ~~sensors~~ image transducers mounted in the cylindrical housing such that they are angularly spaced and aimed radially outward from the housing in a manner to collect a combined image representing a full panoramic view of an area within the normal range of the image transducers, said second plurality of ~~sensors~~ image transducers mounted in a common plane generally perpendicular to the axis of the cylindrical housing and axially spaced from said first mentioned common plane.

Claim 18 (currently amended):

The digital camera of claim 12, further including a planar housing for supporting the plurality of ~~sensors~~ image transducers mounted in the housing on a planar surface thereof and spaced to provide full image collection coverage for a predetermined area.

Claim 19 (currently amended):

Oh, The digital camera of ~~claim 18~~ claim 44, wherein all of the plurality of image transducers are mounted in a straight line on the planar surface.

Claim 20 (currently amended)

The digital camera of claim 19, further including a second plurality of image transducers mounted in a second straight line on the planar surface of the planar housing, said second straight line being parallel to and spaced from said first mentioned straight line.

Claim 21 (currently amended):

The digital camera of claim 12, further including a spherical housing for supporting the plurality of ~~sensors~~ image transducers mounted in the housing in angularly spaced, radially projecting relationship to provide full image collection coverage for a predetermined three dimensional space.

Claim 22 (currently amended):

The digital camera of claim 12, further including a housing comprising an axial sliced cylinder having a planar wall and a partially cylindrical wall, the planar wall adapted for mounting the housing on a relatively flat surface, the plurality of image transducers mounted in the cylindrical portion of the housing such that they are angularly spaced and aimed radially outward from the housing in a manner to collect a combined image representing a full panoramic view of an area within the normal range of the image transducers.

a'
Claim 23 (currently amended):

The digital camera of ~~claim 22~~ claim 46, wherein all of the image transducers are mounted in a common plane generally perpendicular to the axis of the cylindrical portion of the housing.

Claim 24 (currently amended):

The digital camera of claim 23, further including ~~another~~ a second plurality of ~~sensors~~ image transducers, each of said second plurality of ~~sensors~~ image transducers mounted in the cylindrical portion of the housing such that they are angularly spaced and aimed radially outward from the housing in a manner to collect a combined image representing a full panoramic view of an area within the normal range of the image transducers, said second plurality of ~~sensors~~ image transducers mounted in a common plane generally perpendicular to the axis of the cylindrical portion of the housing and axially spaced from said first mentioned common plane.

Claim 25 (original):

The digital camera of ~~claim 15~~ claim 43, the cylindrical housing further including a stand for supporting the cylindrical housing on the floor with the plurality of image transducers mounted in a common transducer plane parallel to the floor.

Q1
Claim 26 (original):

The digital camera of claim 25, including cable and wire passageways in the stand.

Claim 27 (currently amended):

The digital camera of claim 25, including a power supply for powering the digital camera housed within the stand.

Claim 28 (original):

The digital camera of claim 27, wherein the power supply is a self-contained, rechargeable power supply.

Claim 29 (currently amended):

The digital camera of ~~claim 15~~ claim 43, the cylindrical housing including means for supporting the camera from the ceiling with the plurality of image transducers mounted in a common transducer plane parallel to the ceiling.

Claim 30 (currently amended):

a' The digital camera of ~~claim 13~~ claim 43, the cylindrical housing further housing a removable hard drive for storing the image data collected by the plurality of image transducers.

Claim 31 (currently amended):

The digital camera of ~~claim 13~~ claim 43, the cylindrical housing further housing a WLAN transceiver.

Claim 32 (original):

The digital camera of claim 1, wherein the full motion video compressor is an MPEG chip.

Claim 33 (original):

The digital camera of claim 1, wherein the full motion video compressor is a JPEG chip.

Claim 34 (withdrawn):

A method for monitoring an area and producing a pictorial representation thereof for real time surveillance and for archiving and later retrieval of image data, the method comprising:

- a. placing a plurality of image collectors in such a manner as to provide full coverage of the area being monitored;
- b. assigning a zone to each collector;
- c. temporarily locally storing the data collected at each zone;
- d. transmitting the locally stored data at a specific zone to a central base when a triggering event occurs;
- e. transmitting additional data on a real time basis until the triggering event is terminated.

Claim 35 (withdrawn):

The method of claim 34, further comprising the step of shifting from zone to zone as an event progresses through zones.

Claim 36 (withdrawn):

The method of claim 34, wherein the triggering event is an acoustic event.

Claim 37 (withdrawn):

The method of claim 36, including the steps of:

- a. placing a plurality of acoustic event detectors in the area being monitored;
- b. upon occurrence of an event utilizing the time differential among the acoustic event detectors to triangulate and locate the precise location of the event;
- c. selecting the transducer covering the zone where the event occurred; and
- d. initiating transmission of the image data collected by the selected transducer.

Claim 38 (withdrawn):

The method of claim 34, including the step of mapping the area to be monitored by transducer zone.

Claim 39 (withdrawn):

The method of claim 38, further including the step of tracking an event from zone to zone and providing a moving icon on the map to indicate the zone wherein the event is occurring on a real time basis.

Claim 40 (withdrawn):

The method of claim 34, further including the step of activating a plurality of transducers when an event is occurring in more than one zone.

Claim 41 (new):

Q! A digital security camera capable of generating and transmitting digital high resolution image signals in both a full motion video format and a still image frame format, the camera comprising:

- a. a plurality of image transducers each adapted for collecting digital high resolution image signals;
- b. a motion video compressor associated with each image transducer for compressing full motion video images for generating a compressed full motion video image data signal and positioned between said image transducer and a second multiplexer;
- c. a still frame compressor associated with each image transducer for compressing still frame images for generating a compressed still frame image data signal and positioned between said image transducer and a second multiplexer;
- d. a first multiplexer associated with each image transducer for merging the compressed full motion video image data signal and the compressed still frame image data signal into a single, combined image data signal;
- e. a second multiplexer for merging all of said signals into a combined data signal;

- f. a processor associated with the second multiplexer for generating a conditioned output image signal suitable for transmission over a network; and
- g. a network gateway.

Claim 42 (new):

A digital security camera capable of generating and transmitting digital high resolution image signals in both a full motion video format and a still image frame format, the camera comprising:

- a. a plurality of image transducers each adapted for collecting digital high resolution image signals;
- b. a single motion video compressor associated with all of the image transducers for compressing full motion video images for generating a compressed full motion video image data signal and positioned between a first multiplexer and a second multiplexer;
- c. a single still frame compressor associated with all of the image transducers for compressing still frame images for generating a compressed still frame image data signal and positioned between a first multiplexer and a second multiplexer;
- d. a first multiplexer associated with each image transducer for merging the compressed full motion video image data signal and the compressed still frame image data signal into a single, combined image data signal;
- e. a second multiplexer for merging all of said signals into a combined data signal;

- f. a processor associated with the second multiplexer for generating a conditioned output image signal suitable for transmission over a network; and
- g. a network gateway.

Claim 43 (new):

A digital security camera capable of generating and transmitting digital high resolution image signals in both a full motion video format and a still image frame format, the camera comprising:

- a. a plurality of image transducers each adapted for collecting digital high resolution image signals;
- b. a cylindrical housing for housing the plurality of image transducers, each of the image transducers mounted in the cylindrical housing such that they are angularly spaced and aimed radially outward from the cylindrical housing in a manner to collect a combined image representing a full panoramic view of an area within the normal range of the image transducers;
- c. a motion video compressor associated with the image transducer for compressing full motion video images for generating a compressed full motion video image data signal;
- d. a still frame compressor associated with the image transducer for compressing still frame images for generating a compressed still frame image data signal;

- Q'
- e. a first multiplexer associated with each image transducer for merging the compressed full motion video image data signal and the compressed still frame image data signal into a single, combined image data signal;
 - f. a second multiplexer for merging all of said signals into a combined data signal;
 - g. a processor associated with the second multiplexer for generating a conditioned output image signal suitable for transmission over a network; and
 - h. a network gateway.

Claim 44 (new):

A digital security camera capable of generating and transmitting digital high resolution image signals in both a full motion video format and a still image frame format, the camera comprising:

- a. a plurality of image transducers each adapted for collecting digital high resolution image signals;
- b. a planar housing for supporting the plurality of image transducers mounted in the planar housing on a planar surface thereof and spaced to provide full image collection coverage for a predetermined area;
- c. a motion video compressor associated with the image transducer for compressing full motion video images for generating a compressed full motion video image data signal;

- Q'
- d. a still frame compressor associated with the image transducer for compressing still frame images for generating a compressed still frame image data signal;
 - e. a first multiplexer associated with each image transducer for merging the compressed full motion video image data signal and the compressed still frame image data signal into a single, combined image data signal;
 - f. a second multiplexer for merging all of said signals into a combined data signal;
 - g. a processor associated with the second multiplexer for generating a conditioned output image signal suitable for transmission over a network; and
 - h. a network gateway.

Claim 45 (new):

A digital security camera capable of generating and transmitting digital high resolution image signals in both a full motion video format and a still image frame format, the camera comprising:

- a. a plurality of image transducers each adapted for collecting digital high resolution image signals;
- b. a spherical housing for supporting the plurality of image transducers mounted in the spherical housing in angularly spaced, radially projecting relationship to provide full image collection coverage for a predetermined three dimensional space;

- Q'
- c. a motion video compressor associated with the image transducer for compressing full motion video images for generating a compressed full motion video image data signal;
 - d. a still frame compressor associated with the image transducer for compressing still frame images for generating a compressed still frame image data signal;
 - e. a first multiplexer associated with each image transducer for merging the compressed full motion video image data signal and the compressed still frame image data signal into a single, combined image data signal;
 - f. a second multiplexer for merging all of said signals into a combined data signal;
 - g. a processor associated with the second multiplexer for generating a conditioned output image signal suitable for transmission over a network; and
 - h. a network gateway.

Claim 46 (new):

A digital security camera capable of generating and transmitting digital high resolution image signals in both a full motion video format and a still image frame format, the camera comprising:

- a. a plurality of image transducers each adapted for collecting digital high resolution image signals;

- a'
- b. a housing comprising an axial sliced cylinder having a planar wall and a partially cylindrical wall, the planar wall adapted for mounting the housing on a relatively flat surface, the plurality of the image transducers mounted in the cylindrical portion of the housing such that they are angularly spaced and aimed radially outward from the housing in a manner to collect a combined image representing a full panoramic view of an area within the normal range of the image transducers;
 - c. a motion video compressor associated with the image transducer for compressing full motion video images for generating a compressed full motion video image data signal;
 - d. a still frame compressor associated with the image transducer for compressing still frame images for generating a compressed still frame image data signal;
 - e. a first multiplexer associated with each image transducer for merging the compressed full motion video image data signal and the compressed still frame image data signal into a single, combined image data signal;
 - f. a second multiplexer for merging all of said signals into a combined data signal;
 - g. a processor associated with the second multiplexer for generating a conditioned output image signal suitable for transmission over a network; and
 - h. a network gateway.
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ARGUMENT

35 U.S.C. §103(a):

Claims 1-40 are pending in the application, in which claims 34-40 have been withdrawn from consideration. In the Office Action dated November 19, 2003, the Examiner rejected claims 1-12, 32 and 33 under the provisions of 35 U.S.C. §103(a), taking the position that these claims are unpatentable over Monroe (US 6,392,692), in view of Pocock et al. (US 5,949,476).

Applicant traverses the rejections and respectfully requests reconsideration and withdrawal of same since applicant has amended and clarified independent claim 1, thus rendering it no longer anticipated, described, taught, or suggested by any of the cited references. Additionally, applicant has added new independent claims 41-46 and has amended claims 16, 17, 19, 20 and 23-31 so that they are now dependent upon an already allowable independent claim which is not anticipated, described, taught, or suggested by any of the cited references.

Regarding claim 1, applicant has amended the claim to clarify the distinction of this invention from the inventions of Monroe (US 6,392,692) in view of Pocock et al. (US 5,949,476). The applicant's invention involves a digital security camera which can capture both full motion video and still frame video, alternately or simultaneously, and transmit both compressed full motion video and compressed still frame video, alternately or simultaneously. One of the distinctions of applicant's invention is that it is a single camera unit which is capable of capturing and transmitting the full motion and still frame videos simultaneously. However, in the cited Monroe patent, column 11, lines 53-61, Monroe states that the camera runs at full-motion rates in the preferred embodiment, but can also run at lesser rates for still frame or step video applications. This shows that this camera can perform at different rates, but not simultaneously as in applicant's invention. Also, in the cited

Pocock et al. invention, column 2, lines 36-40, it discusses the production of a television signal by using a multiplexer to combine the still frame interactive video images and the motion video images into a standard sequence of images for transmission. The purpose of the Pocock et al. invention is to expand the program capacity of each channel of the television system by distributing at least two distinct presentations concurrently on a single channel. However, the sources of these images are not from a same camera unit as it is in applicant's invention. Thus, applicant's invention is not anticipated, described, taught, or suggested by any of these cited references.

Additionally, with respect to the second and third elements of claim 1, the applicant claims a motion video compressor and a still frame compressor associated with the image transducer for compressing and generating compressed signals of full motion and still frame data respectively. The examiner states that in the cited Monroe patent, column 11, lines 53-60, it states that the camera may utilize internal compression, and that full motion and still image data can be captured by the camera. However, this camera is not capable of performing these functions simultaneously as in applicant's invention. Furthermore, the examiner shows that in column 12, lines 56-67, the cited Monroe patent states that the video may be transmitted in the NTSC format; and by definition, as disclosed by the Pocock et al. patent in column 2, lines 36-40, NTSC is produced by multiplexing still frame images and motion video images into a sequence of images for transmission. While it is correct that the cited Monroe patent can transmit video in the NTSC format, the patent says that this transmission is analog. More importantly, NTSC refers to a format of transmitting video and is made up of 30 frames scanning at 525 horizontal lines per second. NTSC is not, by definition, produced by multiplexing still frame images and motion video images into a sequence of images for transmission. Therefore, the camera in the cited Monroe patent does not perform the above functions simultaneously as in applicant's invention.

As a result, claim 1, wherein an amendment has been made to clarify a feature of applicant's invention, should be in acceptable form because it consists of an element that is not anticipated, described, taught, or suggested by the cited Monroe patent in view of the Pocock et al. patent.

Regarding claims 2-4 and 6, these claims depend from amended independent claim 1, and thus should be in acceptable form. The applicant has placed independent claim 1 in allowable form by amending it to clarify the distinction of this invention over the cited Monroe patent in view of the Pocock et al. patent. Claims 2-4 and 6 are neither taught, suggested, nor anticipated by the cited Monroe patent or any of the other cited references.

Regarding claim 5, the examiner rejected the claim based on an Official Notice. Since supporting documentary evidence has not been provided for this rejection, according to MPEP §2144.03 official notice can be taken only where the facts are asserted to be well-known, or to be common knowledge in the art, and is capable of instant and unquestionable demonstration as being well-known or defy dispute. The applicant argues that an event detector being a manually operated switch is not well-known or common knowledge in the art, and is not capable of instant and unquestionable demonstration as being well-known or defy dispute. This feature allows a security guard which may be patrolling the area to activate a manually operated switch located in the area to begin transmitting video. There might be an occasion where an intruder bypasses the other types of event detectors, i.e. motion detector, sound detector, smoke detector, etc., but a security guard can still activate the system manually in the area. Many security cameras do not provide manual switches in the vicinity of the camera.

Official notice can also be taken without supporting evidence if the facts so noticed are of notorious character and serve only to "fill in the gaps" which might exist in the evidentiary showing

made by the examiner to support a particular ground of rejection. Since there have been no evidentiary showing, the facts which have been noticed are not to “fill in the gaps.” Since the applicant has stated why the noticed fact is not considered to be common knowledge or well-known in the art, the examiner must allow the claim or provide documentary evidence which is in the related art. Claim 5 has been shown to traverse examiner’s rejection of this claim and should be allowed. Also, claim 5 is dependent on an allowable dependent claim 4, which is dependent on allowable dependent claim 3, which is dependent on allowable amended independent claim 1. Claim 5 should be allowed since it is neither taught, suggested, nor anticipated by the cited Monroe patent or any of the other cited references.

Regarding claims 7-10, these claims depend from an allowable dependent claim 6, which is dependent on another acceptable independent claim 1, and thus should be in acceptable form. The applicant has placed independent claim 1 in allowable form by amending it to clarify the distinction of this invention over the cited Monroe patent in view of the Pocock et al. patent. Also, regarding claim 9, applicant amended this claim to correct a grammatical error. Also, regarding claim 10, the applicant has stated above why the noticed fact, an alarm trigger switch, is not considered to be common knowledge or well-known in the art, and thus not capable of being rejected by an Official Notice. Claims 7-10 are neither taught, suggested, nor anticipated by the cited Monroe patent or any of the other cited references.

Regarding claim 11, the examiner rejected the claim by citing figures 2a and 2b in the Monroe patent. Claim 11 includes a wireless receiver wherein the activation signal generator is a remote device having a wireless transmitter for generating an activation signal upon the occurrence of an event. The cited figures only shows a wireless receiver and transmitter. In the cited Monroe patent, the wireless receiver and transmitter are used to remotely monitor conditions surrounding the

commercial transport. These receivers and transmitters merely transmit data information from the commercial transport to the surveillance monitoring area, but are not used to generate an activation signal upon the occurrence of an event, like in applicant's invention. Also, claim 11 is dependent on allowable dependent claim 3, which is dependent on allowable independent claim 1, and thus should be in allowable form. Claim 11 is neither taught, suggested, nor anticipated by the cited Monroe patent or any of the other cited references.

Regarding claim 12, the examiner rejected the claim by citing figure 13 and column 22, lines 16-33, and stating that the cited Monroe patent shows the use of multiple image sensors, two multiplexers, one for combining image data and one for combining all multiplexed data into one signal. However applicant's invention differs from the cited reference in that applicant's invention is a single digital surveillance camera with a plurality of image transducers located in it. The purposes of the plurality of image transducers on a single surveillance camera is to provide a panoramic view of the surroundings and/or allow the operator to switch to a different image angle. Also, this feature allows a much larger view than the costs associated with zoom, tilt and pan features. The cited reference involves multiple camera units which transmits a signal to a multiplexer. Also, claim 12 is dependent on allowable independent claim 1, and thus should be allowable. Claim 12 should be allowed since it is neither taught, suggested, nor anticipated by the cited Monroe patent or any of the other cited references.

Regarding claim 32 and 33, these claims depend from another acceptable independent claim 1, and thus should be in acceptable form. The applicant has placed independent claim 1 in allowable form by amending it to clarify the distinction of this invention over the cited Monroe patent in view of the Pocock et al. patent. Claims 32 and 33 are neither taught, suggested, nor anticipated by the cited Monroe patent or any of the other cited references.

Regarding claims 13-15, 18, 21 and 22, the applicant has amended these claims to correct reference language and grammatical errors. These claims are all dependent on allowable dependent claim 12, which is dependent on allowable independent claim 1. Claims 13-15, 18, 21 and 22 should be allowed since they are neither taught, suggested, nor anticipated by the cited Monroe patent or any of the other cited references.

Regarding claims 16-17, 19-20, 23-25, 27 and 29-31, the applicant has amended these claims to correct reference language, grammatical errors and claim dependency. These claims are now ultimately dependent on one of the newly added independent claims 41-46. Newly added claims 41-46 are dependent claims 13, 14, 15, 18, 21 and 22, respectively, but are now written in independent claim format. These newly added independent claims should be in allowable form because they no longer depend upon a previously rejected independent claim 1. Claims 16-17, 19-20, 23-25, 27 and 29-31 should be allowed since they are neither taught, suggested, nor anticipated by the cited Monroe patent or any of the other cited references.

Regarding claims 26 and 28, the applicant presents these claims in its original form. However, claim 26 depends on dependent claim 25, which now depends on newly added independent claim 43. Also, claim 28 depends on dependent claim 27, which depends on dependent claim 25, which now depends on newly added independent claim 43. Claim 43 should be in allowable form because it no longer depends upon a previously rejected independent claim 1. Claim 43 is dependent claim 15 rewritten in independent claim format. Since claim 43 is neither taught, suggested, nor anticipated by the cited Monroe patent or any of the other cited references, claims 26 and 28 should be in allowable form because they are also neither taught, suggested, nor anticipated by the cited Monroe patent or any of the other cited references.

Regarding newly added claims 41-46, the applicant respectfully provides the following for the examiner's review in support of the allowability of these claims. Newly added claims 41-46 are dependent claims 13, 14, 15, 18, 21 and 22, respectively, but are now written in independent claim format. These new independent claims should be in allowable form because they no longer depend upon a previously rejected independent claim 1. Claims 41-46 are neither taught, suggested, nor anticipated by the cited Monroe patent or any of the other cited references.